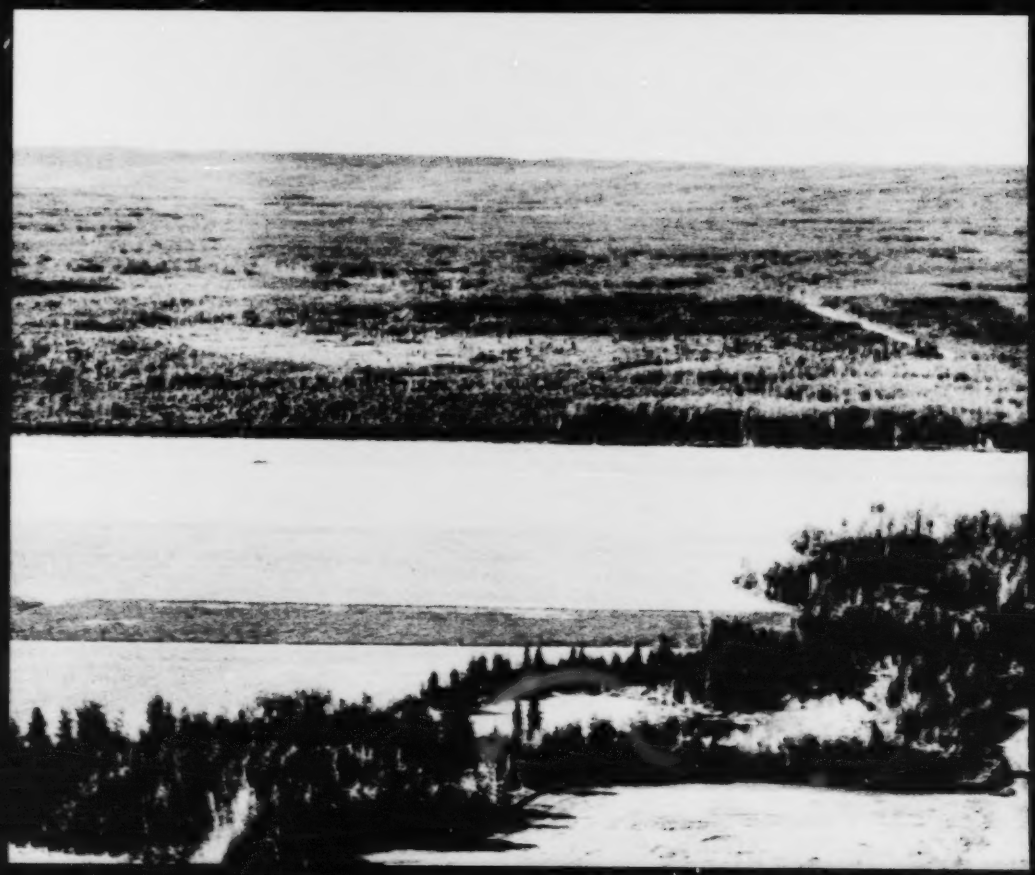
KEG RIVER

Sub-Regional Integrated Resource Plan



Alberta

FORESTRY, LANDS AND WILDLIFE

Resource Evaluation and Planning

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KEG RIVER
SUB-REGIONAL
INTEGRATED RESOURCE PLAN

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PREFACE

This planning document was prepared by involved government agencies and public consultants in recognition of the need for improved management of Alberta's public land and resources. It applies only to public land within the Keg River planning area, not to any private or federal land.

The plan presents the Government of Alberta's resource management policy for public land and resources within the area. It is intended to be a guide to resource managers, industry and the public having responsibilities or interests in the area, rather than as a regulatory mechanism. Resource potentials and opportunities for development are identified with a view to assisting in the economic progress of Alberta. The plan is sufficiently flexible so that all future proposals for land use and development may be considered. No legitimate proposals will be categorically rejected. The provincial government is committed to serving Albertans. Should a proposal not be in keeping with the provisions of the plan, alternate means will be explored for accommodating the proposal in a more appropriate location either in this planning area or on other public land. The rejection of any proposals will be done only in writing by the Minister of Forestry, Lands and Wildlife or his designate.

A detailed outline for implementation will be provided for this sub-regional plan to identify the necessary implementation actions and roles. This outline will also provide for the continuing review of the plan to accommodate changing needs and situations. Wherever possible, the private sector will be provided with the opportunity to be actively involved in the operational aspect of the plan.

Implementation of the plan is to be subject to the normal budgetary approval process with overall priorities to be established in consideration of opportunities in other planning areas and areas currently outside the planning process. While the plan identifies resource potentials and opportunities, the realization of these may require the dedication of major amounts of public funds. The plan will be used on the understanding that any actions required for implementation will be undertaken only as budgetary approvals are given in the normal way. The private sector will be given the first opportunity to provide any developments required.

This plan has no legal status and is subject to revisions or review at the discretion of the Minister of Forestry, Lands and Wildlife.

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1. INTRODUCTION

The Keg River planning area (Figures 1 and 2) was noted by the Peace River Regional Resource Management Committee* (RRMC) as having potential for agricultural expansion. Based on that assessment, the area was identified in April 1984 as a priority for preparation of a sub-regional integrated resource plan.

Integrated resource planning relies on a systematic approach to problem solving. In essence, the approach is composed of the three fundamental stages of an integrated decision-making model:

1) gathering information;
2) making a choice among alternatives; and
3) taking action.

During preparation of a plan, these three stages are refined into more detailed steps with varying formal and technical requirements.

The decision-making process is used co-operatively by means of an interdepartmental planning team approach. Teams consist of representatives from government agencies having major responsibilities or interests in resource management on public land within the planning area.

When the Keg River sub-regional planning project was initiated, government agencies were notified and a planning team was compiled of representatives from Alberta Agriculture and the Alberta Forest Service, Public Lands, Fish and Wildlife, and Resource Evaluation and Planning divisions of the Department of Forestry, Lands and Wildlife.

In addition to the agencies represented on the planning team, other government agencies and local and regional authorities were invited to participate in a consultative capacity by presenting their concerns and opinions at key stages.

Provincial Level:

- Alberta Environment
- Alberta Energy, Mineral Resources Division
- Alberta Recreation and Parks
- Alberta Transportation and Utilities
- Alberta Culture
- Alberta Tourism
- Native Affairs Secretariat
- Northern Alberta Development Council, Northern Development Branch
- Alberta Municipal Affairs
- Alberta Forestry, Lands and Wildlife, Resource Evaluation Branch

*A Committee of regional directors in Peace River.

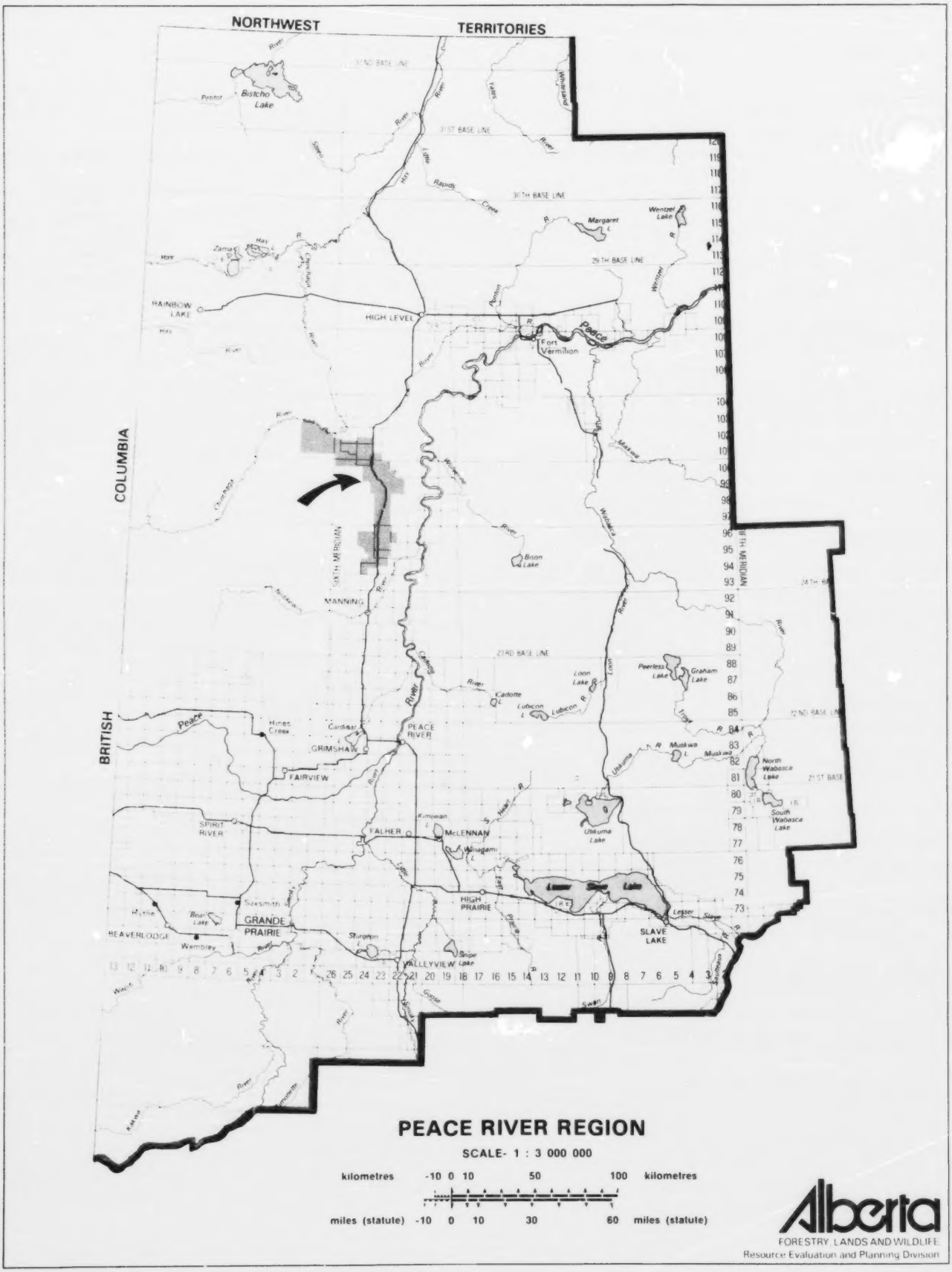

Figure 1 LOCATION OF KEG RIVER PLANNING AREA

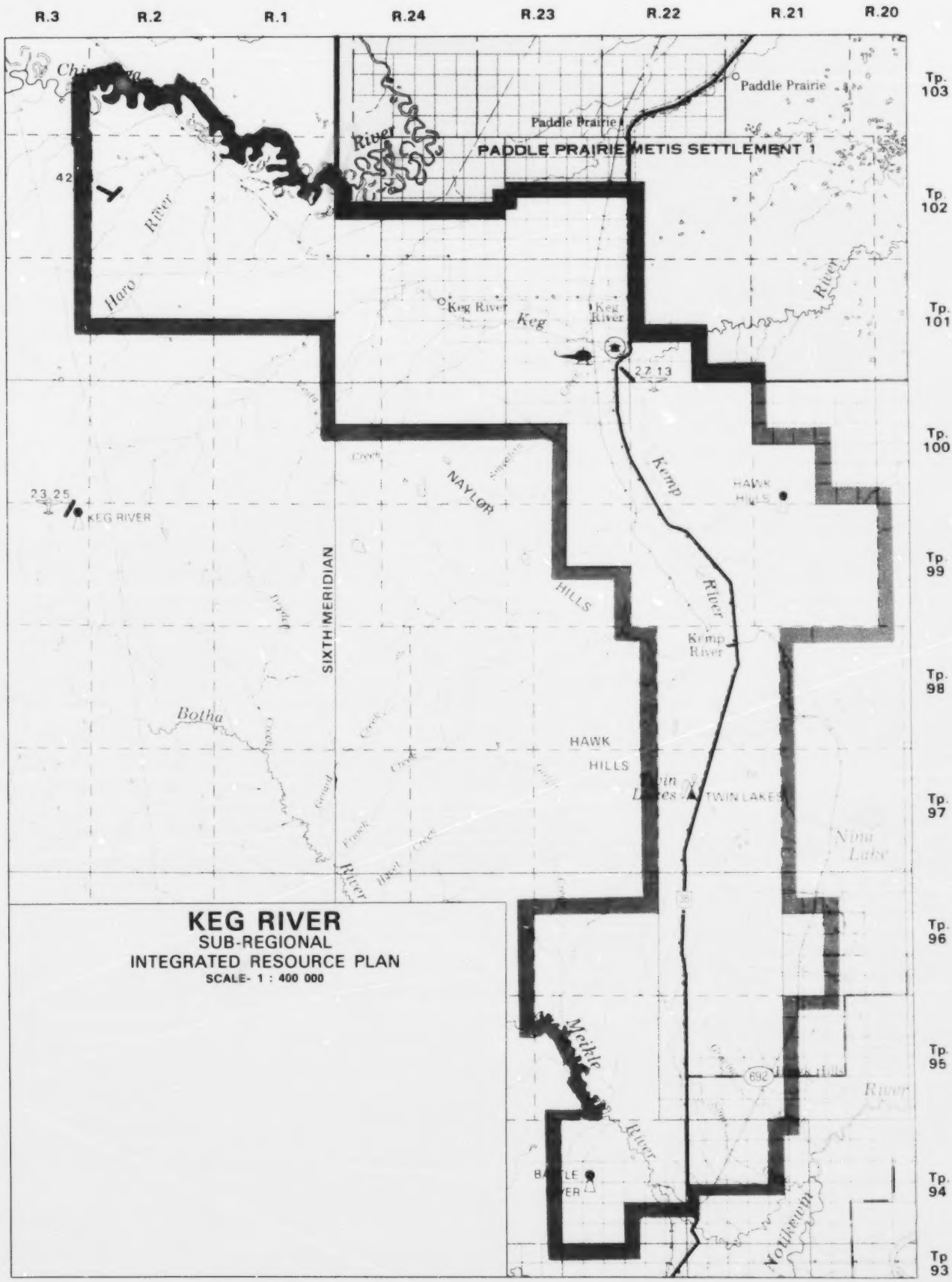

Figure 2 KEG RIVER PLANNING AREA

Local and Regional Level:

- MLA - Peace River
- MLA - Dunvegan
- Mackenzie Regional Planning Commission
- Improvement District #22 Council
- Improvement District #22 - Agricultural Development Committee

Throughout the planning process, public interest groups/associations, industries and individuals were also invited to participate by submitting information, reviewing plan documents and attending public meetings to present their views.

The final plan will apply only to land and resources vested in the Crown, in both the Green and White Areas. Private land within the boundaries of the Mackenzie Regional Planning Commission remains under the planning control of local municipalities and the Commission. The Alberta government will continue to make every effort to strengthen co-ordination and co-operation with local planning authorities.

Planning Area Description

Location

The Keg River planning area is located in northwestern Alberta, north of Manning and south of High Level. It is essentially a corridor joining the Keg River and Hawk Hills settlements, totalling a land area of approximately 1 696 km^2 (655 sq. mi), with the following boundaries:

North - Paddle Prairie Metis Settlement and Chinchaga River

Rationale -The northern portion of the planning area encompasses the older, well-established Keg River settlement. The Keg River settlement area had approached its limit for agricultural expansion.

South - Hawk Hills Settlement

Rational - The Hawk Hills settlement also had approached its limit for agricultural expansion.

East - Paddle Prairie Metis Settlement, Hawk Hills and Accelerated Land Sales Area

Rationale - This boundary joins the eastern portion of the Keg River settlement (north) to the Hawk Hills settlement (south). Not included in the planning area is the suitable agricultural land, being presently settled (100-20-W5 and 99-20-W5), that has already undergone an integrated decision-making process as part of the Accelerated Land Sales Program.

West - Rough topography of the Naylor and Hawk hills.

Rationale - The boundary extends beyond the known limit for agricultural expansion. Elevation and surface topography is considered the limiting factor.

Resource Synopsis

An integrated resource inventory of the Keg River planning area was undertaken during 1984 with the intent of collecting, analyzing and evaluating data on the natural resources in support of the sub-regional planning project. Individual landscapes were evaluated for forestry, agricultural and wildlife concerns. The detailed results of this inventory and the landscape descriptions and evaluations are found in Brierley et al (1985). The following section provides a synopsis of that information.

The Keg River planning area lies within three physiographic regions delineated on the basis of bedrock geology and elevation. These regions are the Peace River and the Fort Vermilion lowlands and the Clear Hills Upland.

The Peace River Lowland covers the southern portion of the planning area and extends to the north from the Meikle River for approximately 12 km where it meets the Clear Hills Upland. The Peace River Lowland, a nearly level to very gently rolling plain, slopes to the southeast corner of the planning area and is drained by the Meikle River and Slims and Gravina creeks.

Moderately well-drained, Orthic and Solonetzic Gray Luvisols and Dark Gray Solods, that have developed on non- to very slightly stony glaciolacustrine and lacustrotill deposits, are typical of the Peace River Lowland. Poorly-drained Orthic Luvic Gleysols occur locally across the landscape. Imperfectly- to poorly-drained soils are not as common in the Peace River Lowland.

The Clear Hills Upland encompasses much of the central portion of the study area and includes both the Naylor and Hawk hills. This rugged, partially-fluted upland area ranges in elevation from 490 m(amsl) near the Hawk Hills grain elevator in the southeast to over 725 m(amsl) for both the Naylor and Hawk hills. The topography ranges from gently rolling to moderately sloping with strong to extreme slopes occurring along the scarp face of the Naylor Hills. The southern portion of the region is drained by the Meikle River and its tributaries, while the northern portion is drained by the Keg and Haro rivers and their tributaries.

Soil development within the Clear Hills Upland is tied closely to surface materials. Imperfectly-drained Gleyed Solonetzic Gray Luvisols predominate on lower slopes where lacustrotill and till deposits occur. On upland sites where till, residual glaciofluvial and colluvial materials are found, pedogenic processes are poorly developed. Moderate-

ly well- to well-drained Eluviated Brunisols and Brunisolic Gray Luvisols are typical of the higher elevation in the Clear Hills Upland. Extensive wetland areas are found in association with glaciofluvial deposits south of Twin Lakes. Fibrisols and Mesisols are found in association with Rego Gleysols. Extensive peat plateaus occur immediately west of the study area in the Clear Hills Upland.

The Fort Vermilion Lowland occurs north of the Clear Hills Upland and extends southward into the basin-like area between the Naylor and Hawk hills. The region slopes to the north and east.

Within the Fort Vermilion Lowland, pedological processes have been influenced strongly by relatively fine-textured materials, nearly-level topography, seepage from the adjacent Clear Hills Upland and the effects of ponding by beavers. The combination of the above factors has resulted in the development of widespread wetlands interspersed among moderately-well to poorly-drained topography.

Low permeability and high soil moisture has resulted in the formation of perched water tables and has encouraged the development of imperfectly-drained Gleyed Gray Luvisols and poorly-drained Orthic Luvic Gleysols across most of the landscape. Orthic, Solonetzic and Dark Gray Luvisols occur on better-drained topography but are localized. Poorly-drained Rego and Humic Gleysols and very poorly-drained Terric Fibric Mesisols are typical of wetland areas. Soils on fluvial deposits vary from Cumulic and Gleyed Cumulic Regosols to Orthic Gleysols, while textures range from sand to silty clay loams.

The climate of the planning area is typical of northern Alberta. It is characterized by long, cold winters with little precipitation, and short, warm summers with maximum precipitation during July.

Effective, growing degree-days and climatic moisture balance are regarded as the two most important criteria in rating climatic suitability of a landscape for agriculture. Upland areas, such as the Naylor and Hawk hills, are characterized by having fewer than 1 100 effective growing degree-days and are generally found to have a moisture surplus. In contrast, lowland areas have between 1 100 and 1 250 effective growing degree-days, and have a small moisture deficit of between 200 and 250 mm. Wheat and canola generally require a minimum of 1 100 growing degree-days to mature. While most of the Peace River region is typified by similar growing degree-days and moisture balances, Bothe and Ames (1984) have found the Keg River area to be somewhat less arid than other areas in the Peace River region. This would indicate that the Keg River area has a more favourable moisture situation than other areas within the Peace region.

The principal ungulate species in the area is moose, with population densities ranging from one to four moose/km^2. The most important winter and spring ranges include the Battle River Tower area, the Meikle River valley, Twin Lakes/Kemp River range, the Kemp River flats, the Hawk Hills Tower area and the Chinchaga River flats.

Both mule deer and white-tailed deer occur here. The prime habitat for mule deer is along water courses and the south-facing aspects of the Hawk Hills, and in the area of the Battle River Tower. White-tailed deer have been increasing in numbers, and use the farming edges as well as the river and creek systems.

Although not numerous, woodland caribou are found throughout the area. Alberta's new Wildlife Act classifies the caribou as endangered, thus providing the maximum protection possible under the Act.

Black bear are common throughout the area. Although grizzly bear are not numerous, they are found in the area of the Chinchaga River, Haro River and Naylor Hills.

There are 11 registered traplines in the planning area. The major species trapped, in descending order of economic importance, are: lynx - found in hare habitat of dense understories near shelter of mature stands; beaver - in streams, rivers and lakes; fisher - in most areas with habitat diversity including snags and conifers; marten - in mature conifers; coyote - in all habitats with good supplies of hares, grouse or mice; mink - along watercourses; and squirrels - in mature conifers. Smaller numbers of black bear, fox, wolf and wolverine are also trapped.

Waterfowl, although limited by a general lack of lakes and sloughs, are found nesting along most lakes and streams. Staging grounds in fall and spring are very important along the Chinchaga and Meikle rivers. Grain fields are favoured in the fall.

Upland game birds include ruffed, spruce and sharp-tailed grouse. The very cyclical ruffed grouse is found in diverse habitats of aspen with willow vegetation, while spruce grouse require some pine and/or spruce with aspen part of the vegetation. The sharp-tailed grouse require open areas with scattered brush, not intensively cultivated, and wetland/river breaks with sedge/grass/shrub mixes.

The major species of sportfish, including pike, walleye, goldeye and Arctic grayling, are found in the Chinchaga, Meikle, Keg and Kemp rivers. The tributaries and feeder streams of these rivers, as well as the Haro River, Goffit, Smeaton and Gravina creeks, provide spawning habitat for pike and grayling, with deeper ponds and beaver dams used for wintering.

The plan area encompasses the headwaters of numerous small streams originating in the Naylor and Hawk hills. Slopes within the planning area serve as water sources sensitive to erosion and characterized by frequent slumping. Streams within the planning area are tributaries to the Peace River and Hay River basins. The headwater reaches are generally characterized by deeply-incised stream courses with fast flood response, whereas downstream reaches are characterized by gently meandering courses.

The native vegetation of the Keg River planning area is a mosaic of deciduous, coniferous and mixed forests typical of the Boreal Mixedwood Ecoregion with scattered shrubland and grassland communities. In recent years, a significant portion of the native vegetation in the vicinity of Hawk Hills and Keg River has been cleared and cultivated for annual production of cereal crops, forage and oilseeds.

Aspen forests on various parent materials predominate in the study area. Forests within the Fort Vermilion and Peace River lowlands are on average less than 50 years old and primarily a result of frequent fires. Atop the Clear Hills Upland where fire is not as frequent because of cooler and moister conditions, the aspen is somewhat older on average (>65 years) and commonly found in association with white spruce. Where groundwater seepage is pronounced or the water table is near the surface, balsam poplar becomes a significant component of the forest cover and may occur as pure stands, especially along river valleys.

White spruce forests are most common on top of the Clear Hills Upland. Aspen and, to a lesser extent, balsam fir, occur as codominant species within these stands. Understories are poorly developed compared to aspen stands, but generally include low-bush cranberry, rose and feathermosses. Relic white spruce stands are found throughout the Peace River and Fort Vermilion lowlands, usually at the base of the Clear Hills Upland. These forests have developed on a variety of surficial materials, including glaciolacustrine, lacustrotill, till, residuum and colluvium.

Sedge meadows are not extensive but are generally associated with deep organic soils that have developed within glacial meltwater channels, and in the wettest areas within willow shrubland communities.

Early works have indicated that native grasslands existed in the vicinity of the Keg River and extended in a northeastly direction towards Paddle Prairie along the Boyer River. These grasslands were cultivated by early settlers during the 1930s. Small relic grasslands exist today along the steepest, south-facing slope of the Meikle River.

From an archaeological perspective, the planning area is comparatively unknown. Two rich artifact collections (HgQj-1 and 2) have been reported for the general area, but the locations of specific sites are not known. Several locations within the study area itself, however, are considered to have moderate to high archaeological potential, especially for prehistoric archaeological sites. These include several topographic prominences within the study area, most notably the Hawk Hills and the northeastern edge of the Naylor Hills. These prominences may have provided suitable terrain for prehistoric settlement early in the post-glacial period, while serving as vantage points in subsequent periods.

Throughout northern Alberta, prehistoric archaeological sites have a known association with topographic prominences and elevations located in close proximity to waterbodies. Accordingly, high to moderate

potential exists for the discovery of sites along the Chinchaga, Keg, Kemp and Meikle rivers as well as along Smeaton and Goffit creeks. Additionally, the Chinchaga and Keg rivers are known to have been used by natives from the early historic through recent periods. Traces of historic as well as prehistoric encampments and other activities are anticipated in these areas.

Palaeontologically, bedrock in the Keg River planning area consists of fossiliferous marine to continental deposits of the Shaftesbury and Dunvegan Formations, ranging in age from Lower to Upper Cretaceous.

The Shaftesbury Formation consists of marine shales. It predominates throughout this area and forms the base of the flanks of the Naylor Hills, most of the Hawk Hills and any exposed bedrock in the Keg River and Kemp River drainages. Fossils collected from the Shaftesbury Formation farther to the south in the Spirit River and Smoky River drainages include pelecypods, gastropods and fish scales. The importance of these collections to date has been largely stratigraphic.

The Upper Cretaceous Dunvegan Formation overlies the Shaftesbury Formation, but is much more limited in its occurrence in the planning area. It forms the upper horizons of the Naylor Hills and a small portion of the Hawk Hills to the east. The Dunvegan Formation consists of marine to continental sediments including massive sandstones, shales and coals. Invertebrate fossils are abundant in the exposed Dunvegan Formation of the Spirit River and Smoky River drainages to the south. In those areas, a rich assortment of pelecypods and gastropods has been collected. The Dunvegan Formation has produced dinosaur footprints, Cretaceous mammals and fish fossils in the continental sediments to the southwest.

Historically, the planning area was opened for settlement in the late 1920s. Remains of isolated historical resource sites associated with homesteading activity may occur in the area. It is also expected that sites associated with timber management may be located in the area.

Resource Capability

Agricultural capability ratings for till cropping in the Keg River planning area are shown in Figure 3. Evaluations for agriculture are based on the Storie rating system which examines soil zone, frost-free period, soil profile variation, texture, stoniness and topography (Brierley et al 1985). The evaluations for this area, however, are presented in the context of provincial agricultural capability ratings and not on a regional basis. The evaluation classes (Fig. 3) are defined as follows:

- moderate - generally considered to have fair to good capability for till cropping

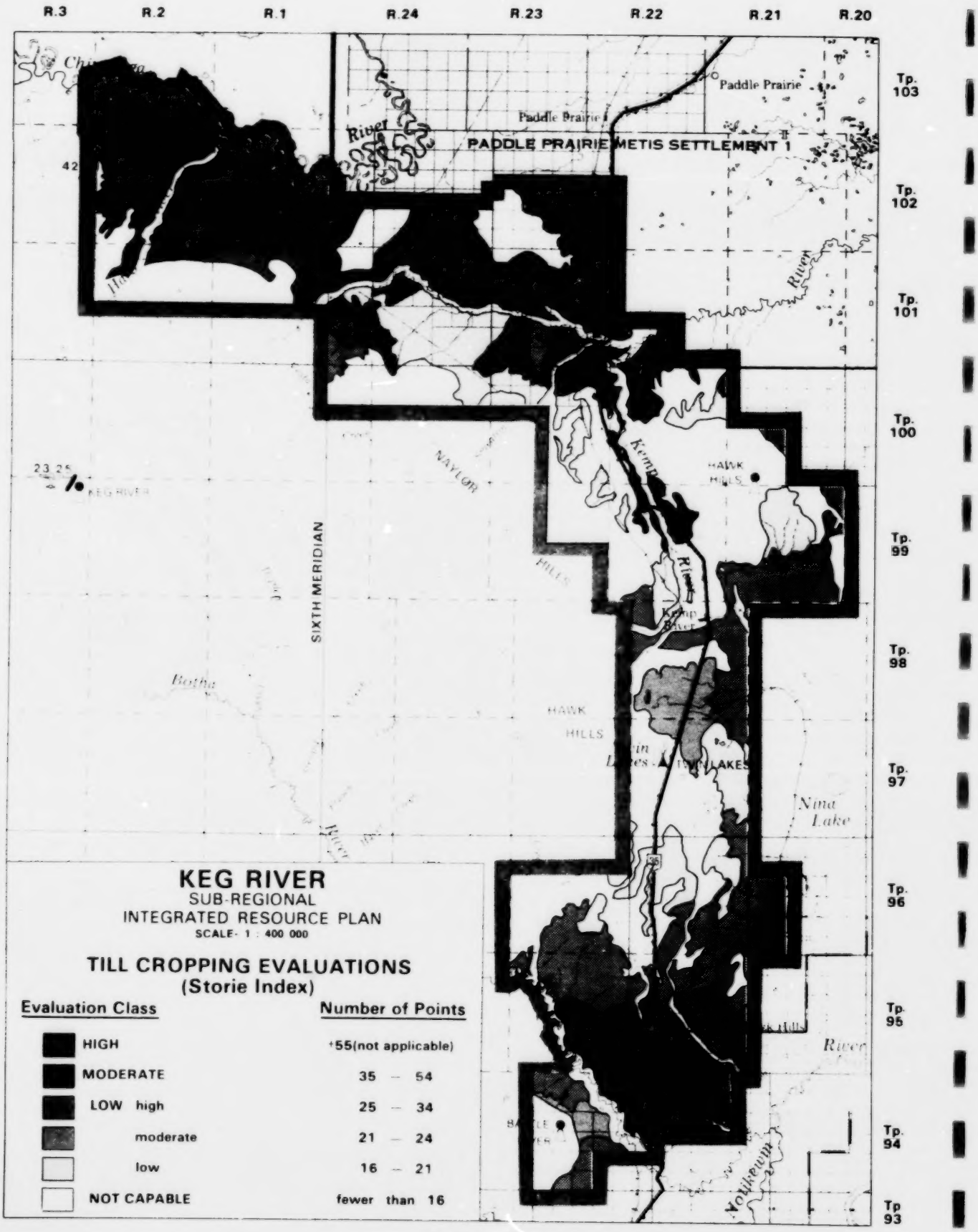

Fig.3 Agricultural Capability

- low(high) - generally considered to have fair capability for till cropping

- low(moderate)/low(low) - generally considered to have marginal capability for till cropping. This land may or may not prove to be capable based on the type and severity of soil limitations.

Units of land are shown completely as non-capable where 50 per cent or more of the land has been rated as non-capable. Units shown as low or moderate may in fact contain up to 40 per cent non-capable land. The capability analysis was undertaken at the planning scale of 1:100 000 for the whole area.

In general, the Peace River Lowland, a significant portion of the Fort Vermilion Lowland and the lower slopes of the Clear Hills Upland, are rated as having a moderate capability for till cropping. Most of the Clear Hills Upland, however, is rated as non-capable for till cropping.

Forest productivity within the Clear Hills Upland and the Fort Vermilion Lowland is generally rated as moderate to high, while forest productivity within the Peace River Lowland is rated as moderate.

The habitat suitability for ungulates is highly variable within the study area. The Peace River Lowland is rated as having low habitat suitability for ungulates, while the Fort Vermilion Lowland is rated as moderate. The Clear Hills Upland provides the most favourable habitat for ungulates and is rated as moderate to high.

Present Use

The main agricultural activities in the Hawk Hills and Keg River areas at present are production of cereal grains and oilseeds and, to a lesser extent, livestock. The direction of farming has changed significantly in the last 25 years. In 1961, 50 per cent of all farms in the Keg River, Hawk Hills and Paddle Prairie areas were classed as cattle, hog and sheep operations, while 45 per cent were classed as grain operations (Maxwell 1964). At present, it is estimated that at least 75 per cent of all farms are classed as grain operations, while only 25 per cent are classed as livestock operations.

The agricultural capability of the Peace River and Fort Vermilion lowlands and the lower portions of the Clear Hills Upland rates favourably when compared with the existing Hawk Hills/Keg River farm communities. Local, cultural management practices have developed over time to overcome commonly identified soil and climatic "limitations". Farms in the area have become and remain viable. The following table outlines relative percentages of major crops grown, as taken from the 1983/84 crop year reports of seeded acreage (Alberta Agriculture 1983).

	Wheat	Barley	Canola	Perennial Forage
Hawk Hills	22%	33%	30%	15%
Keg River	27%	30%	33%	10%

As economic conditions change and various management options are pursued, the direction of agriculture may change so that a more diversified agricultural industry develops, including cereal grain, oilseed, ranching and mixed operations. The study area has potential for increasing the livestock industry, as well as cereal grain and oilseed production in the area.

There is, currently, limited demand for additional unimproved or improved grazing within the planning area. Increased demand for grazing may become more evident as agricultural development intensifies. The planning area has potential to meet future demands.

The Keg River planning area is subject to two coniferous Timber Quota commitments, a local woodlot, numerous local timber permit holders and the potential for development of deciduous timber. The area represents a significant portion of the Quota Annual Allowable Cut (AAC)* for Forest Management Unit (FMU) P10, and a less significant portion of the AAC for FMU P6. The AAC for the FMU P10 is 70 000 m^3 of which 45.21 per cent (31 647 m^3) is committed under Quota Certificate CTQ P10001 to Canadian Forest Products Ltd. The AAC for FMU P6 is 157 600 m^3 of which 45.1 per cent (71 078 m^3) is committed under Quota Certificate CTQ P06004 to Canadian Forest Products Ltd. The Procter and Gamble Provisional Reserve occupies portions of the planning area. A demand for harvestable coniferous timber exists from local residents, more so in the Hawk Hills area than in the Keg River area, primarily as a supplement to agricultural income. Deciduous timber, primarily aspen, within the plan area has a favourable age class distribution for use within the next 10 to 20 years. The area contains 1 044.1 ha (2 580 acres) of coniferous plantations established in 1979 under the Maintaining Our Forests program, and approximately 1 206.1 ha (2 980 acres) of coniferous plantations established in the late 1960s.

The portions of the planning area within the Procter and Gamble Provisional Reserve are fully committed to the production of timber. This area falls into two management units, and those commitments are:

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*The Annual Allowable Cut (AAC) is based on utilization of timber to a 15 cm stump and an 11 cm top.

Management Unit	Per cent Committed Under Quota	Per cent Committed Under Procter and Gamble Provisional Reserve
P6	45.1	54.9
P10	45.2	54.8

In addition to the above, significant timber volumes exist on land in the White Area. This timber is currently satisfying the community needs for primary timber products.

The incidence of forest fires in the Keg River planning area is similar to the rest of the province. About 60 per cent of the fires result from human activities. The remainder are caused by lightning. Burning for debris disposal is common and is associated with land clearing. Forest protection facilities in the planning area include two lookout towers, Hawk Hills and Battle River, and a staging camp for fire-fighting crews. In the past, there has been little prescribed burning other than debris disposal. However, as need and capability improve, the use of fire for silviculture purposes and to improve range and wildlife habitat is expected to increase.

Outdoor recreational opportunities are extensive within the planning area. Hunting and fishing are the most common pursuits, with a significant amount of subsistence hunting. As well, an estimated 370 people hunt moose in the planning area, generating 2 900 hunter days of recreation. The additional market value of this activity is approximately $130 000 per year. The additional market value of deer and bear hunting has not been estimated but it is considerable. Five to ten big game guides and outfitters operate within the planning area.

A provincial campground development at Twin Lakes attracts local residents for day use, picnicking and fishing, as well as providing overnight camping opportunities for travellers on the Mackenzie Highway and communities to the north. Twin Lakes are stocked annually with 21 000 rainbow trout. Notikewin Provincial Park is less than 16 km from the southeastern boundary of the planning area, and provides most of the recreational needs of local residents. A small, community-sponsored picnic area is being developed along the Chinchaga River to serve people in the northern portion of the planning area.

Tourism resources in the Keg River planning area are limited. Highway 35, the Mackenzie Highway, is a major travel corridor through the planning area. Most tourist traffic in this area is pass-through traffic. The 1982 Alberta Travel Survey of non-resident visitors indicates that from May 15 to October 31, 1982, 74 044 visitors travelled the highway between Grimshaw and High Level (Travel Data International 1983).

Two major rivers, the Chinchaga and the Meikle, provide some opportunity for commercial operators of river rafting or canoeing trips.

There has been extensive exploration for oil and natural gas in the vicinity of the planning area since the mid-1970s, resulting in the discovery of the Boyer and Haro gas fields west and north of Keg River. The Boyer field includes all or portions of Townships 100 to 102, Ranges 23 to 25, W5M and all of Townships 101 and 102, Range 1, W6M. The Haro field includes all or portions of Townships 101 to 103, Range 2, W6M. Both fields extend north and west of the planning area. Within the planning area, by October 1984 there were 49 active and 17 capped gas wells in the Boyer field and 9 active and 5 capped gas wells in the Haro field. There has been limited exploration within the Clear Hills Upland and Peace River Lowland and there are no producing wells in these areas.

A major oil pipeline extending from Rainbow Lake, Alberta, crosses the Fort Vermilion Lowland in a northwest-southeast direction from the Chinchaga River through the basin-like area between the Naylor and Hawk hills. It is owned by Rainbow Pipe Line Company Ltd., and transports oil from the Rainbow and Zama fields further north, to the refineries in central Alberta.

Oil sands of the Peace River oil sands deposit have been delineated only 10 km to the south of the planning area.

Sand and gravel resources within the planning area are limited.

2. RESOURCE MANAGEMENT STRATEGY

This section provides broad resource management direction for the entire planning area.

Purpose Statement

The intent of the planning exercise is to ensure that co-ordinated management of resources is undertaken within the planning area. The plan will facilitate the best use of resources while minimizing any negative impacts that use or development of any resource may have on other resources. More specifically, the purpose of the plan is to provide additional land suitable for agricultural expansion and make possible a permanent land base for long-term forest and wildlife management by realigning the existing Green Area boundary (Figure 4).

Broad Resource Objectives and Guidelines

The resource objectives reflect priorities for the Keg River planning area within the context of the Peace River region. The associated common, resource management guidelines are intended to aid in the integration of objectives and to minimize conflicts.

Agriculture

Objectives:

1. To respond to the demand expressed by individuals for farm expansion by making additional suitable public land available.

2. To identify and stabilize the agricultural land base to accommodate future farm expansion and community development needs.

3. To ensure that agricultural expansion can occur progressively and in keeping with existing community developments.

4. To ensure that agricultural expansion areas have the potential to be developed into viable farming operations while minimizing adverse impacts on other resource values in the area.

Guidelines:

1. The majority of agricultural development will be located in the White Area and will include land suitable for production of till crops and livestock (improved and unimproved grazing). In the Green Area, agricultural development will include land suitable for grazing.

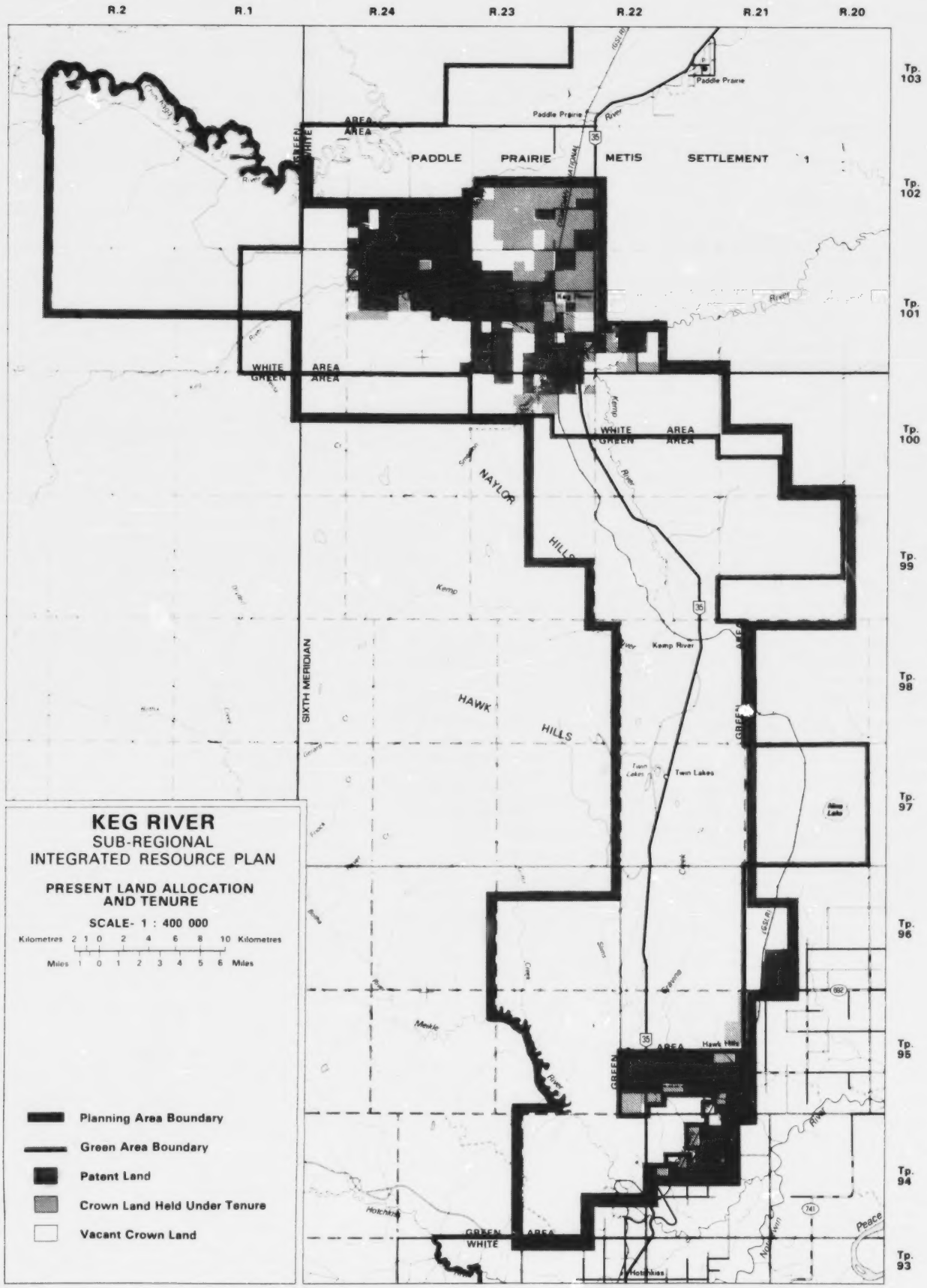

Fig. 4 Present Land Allocation and Tenure

2. At an operational level, agency referrals will be made to establish appropriate development conditions during implementation of the plan.

3. All grazing leases, permits and licences may require an approved range management plan prepared by the Public Lands Division and/or the Alberta Forest Service in consultation with other affected government agencies.

4. Improved and unimproved grazing may occur on public land throughout the planning area where compatible with other resource objectives.

5. Land suitable for agricultural development will be located near existing community developments as much as is practical to do so.

Watershed

Objectives:

1. To maintain water quality, quantity and flow regime as it relates to:

   - the provision of water for onstream and downstream users;
   - provision of habitat for fish, aquatic furbearers, waterfowl and other wildlife populations; and
   - provision of quality recreation experiences.

2. To co-ordinate watershed management at an operational level to meet specific needs of resource users; for example, requirements for drainage and wetland habitat.

3. To promote soil conservation.

Guidelines:

1. Buffer strips, retention and detention areas for surface water control will be incorporated into the planning of resource management projects.

2. In cases requiring assessment of land to be drained, or for implementation of drainage programs, Alberta Environment will consult Alberta Forestry, Lands and Wildlife and other affected agencies.

3. Surface disturbances and intensive land uses will be managed on the slopes of the Naylor and Hawk hills so as to protect the environment through necessary mitigative measures (ecosections CHU.CM1, CHU.CX1 and CHU.CX2 in Brierley et al 1985).

4. Management strategies will be provided during pre-planning to prevent or minimize the impact of land use on water management.

Ecological Resources

Objective:

1. To protect both representative and unique areas of the natural environment having provincial significance for recreational, scientific or educational use.

Guideline:

1. Resource uses in the planning area will be monitored using the Alberta Forestry, Lands and Wildlife referral system. Areas determined to be of ecological significance may be placed under reservation and notation.

Fisheries

Objective:

1. To maintain optimum populations of the fish species in all fish-bearing streams and lakes.

Guidelines:

1. Refer to the Watershed Guidelines.

2. Retain important wetland areas and streamside land for maintenance of water quality and natural stream flows.

3. Fisheries regulations will continue to be enforced to ensure that consumptive uses comply with regulations and that harvest does not exceed allowable limits.

4. The Fish and Wildlife Division will participate in the departmental referral system to ensure that the interest of the fisheries resource is addressed.

5. Mitigation and habitat enhancement must be considered whenever resource activity adversely affects important habitat areas. Suitable action will be identified in the context of the departmental referral system.

Historical Resources

Objective:

1. To protect historical resources from potential or actual impact related to further resource developments, and to conserve these resources for future generations.

Guidelines:

1. Resource uses in the planning area resulting in disturbance of the land surface may require that Historical Resources Impact Assessments be conducted before development takes place as outlined under the Historical Resources Act, Sec. 33(2).

2. The Archaeological Survey of Alberta, Resource Management Section, will participate in the Alberta Forestry, Lands and Wildlife referral system to review proposed development projects within those portions of the planning area with historical resource potential.

Access

Objective:

1. To co-ordinate development of access on public land while recognizing wildlife and environmental values.

Guidelines:

1. The development of public access routes will be planned by Alberta Transportation and Utilities with input from Alberta Forestry, Lands and Wildlife, and Alberta Environment. Following completion of the route plans, other affected government agencies will be informed as to the location of the roads and will have an opportunity to provide comments to Alberta Transportation and Utilities.

2. Industrial access will be co-ordinated wherever feasible through the Alberta Forestry, Lands and Wildlife referral system so that common corridors and/or existing grid networks are used.

Mineral Resources

Objectives:

1. To provide opportunities for the minerals industry to define the extent of, and develop or produce, the natural gas resource of the Haro, Boyer and Hawk gas fields.

2. To provide opportunities for exploration and development of all minerals in previously-unexplored areas or geologic formations.

3. To provide for the orderly development of sand and gravel resources.

Guidelines:

1. Proposals for energy, mineral and sand and gravel developments will be evaluated through the Alberta Forestry, Lands and

Wildlife referral system to ensure that accepted standards and practices for environmental protection are met.

2. Lands will be reclaimed in accordance with the Land Surface Conservation and Reclamation Act, RSA 1980. Follow-up inspections will be done before a Reclamation Certificate is issued.

3. The priority will be to retain sand and gravel resources under public ownership.

Recreation

Objectives:

1. To identify and manage areas with the potential for future recreation needs as demand warrants.

2. To provide opportunities for the development of commercial recreation consistent with provincial objectives and policies that complement existing recreation opportunities such as guiding and outfitting.

3. To provide hunting and fishing opportunities.

Guidelines:

1. Applications for land-use activities along the Kemp, Chinchaga, Haro, Meikle and Keg rivers will be evaluated and accommodated through necessary mitigative measures to ensure compatibility with recreational opportunities. In addition, existing dispositions will be monitored to ensure they also are compatible.

2. Development of future recreational sites will be co-ordinated by policies and procedures of Alberta Recreation and Parks, Alberta Transportation and Utilities, and Alberta Forestry, Lands and Wildlife.

Timber

Objectives:

1. To manage the timber resource for sustained-yield timber harvests, while promoting a forest environment of high quality.

2. To identify and manage areas of industrial consumption and local use of woodlots to meet demands for timber. Demand for permit logging by local residents is approximately 40 000 m^3 per year, while demand for industrial consumption is approximately 60 000 m^3 per year.

3. To reforest cutover areas and initiate afforestation projects on designated forest lands.

4. To protect the forest from damage and destruction by fire, insects, disease or other causes.

5. To promote full use of the timber resource.

6. To maintain existing timber supply commitments to industry while providing opportunities for expansion.

Guidelines:

1. Areas included in the Forest Management Unit P6 will be managed under the Timber Quota Policy and the Procter and Gamble Forest Management Agreement, subject to the provisions of the management plan for this FMU.

2. Areas included in the Forest Management Unit P10 will also be managed under the Timber Quota Policy and the Procter and Gamble Provisional Reserve Agreement, subject to the provisions of the management plan for this FMU.

3. Aggressive prevention, detection, pre-suppression and suppression activities will be employed to protect forest resources from fire, insects and disease.

4. Forest productivity will be continued and improved by the employment of silvicultural practices.

5. Timber stands will be monitored for insect and disease occurrence, and effective physical and/or biological controls applied as required.

6. Salvage logging will be used in the event of fire, insect or disease damage and when industrial activity endangers timber. Salvage logging will occur when and where it is economically feasible.

Tourism

Objectives:

1. To increase the use of the planning area by resident and non-resident visitors by encouraging a variety of tourism/recreation opportunities.

2. To allow for the development and/or expansion of tourism and recreational facilities, particularly by the private sector.

Guidelines:

1. Disposition of public land to the private sector will be considered for development of tourism and recreational facilities.

2. Tourism opportunities such as river rafting, canoeing, snowmobiling and associated support services, will be permitted and accommodated in the planning area wherever possible.

3. Funding assistance may be available to The Land of the Mighty Peace Tourist Association or other non-profit organizations to develop an Exploration Guide for the Mackenzie Highway.

4. Planning advice will be provided to assist existing and potential operators of tourism facilities and services. Marketing and demand information and promotional advice will be supplied when available.

Wildlife

Objectives:

1. Maintain optimum populations of all indigenous wildlife species including ungulates, carnivores, furbearers, game birds, birds of prey and non-game species with particular emphasis on threatened and rare species.

2. Manage game and furbearer species to meet the demands of domestic users, hunters and trappers.

3. Maintain key wildlife ranges for wintering, spring feeding, calving and migration.

4. Maintain diversity in vegetation composition and successional stages.

Guidelines:

1. The Fish and Wildlife Division will participate in the Alberta Forestry, Lands and Wildlife referral system to ensure awareness of critical and problem areas in inventory and enforcement.

2. Wildlife harvesting techniques and enforcement of regulations will be used to maintain optimum populations.

3. The program to control damage by wildlife will be maintained.

4. Mitigation and habitat enhancement must be considered whenever resource activities have an adverse impact on important wildlife ranges.

5. The Fish and Wildlife Division will encourage the use of timber harvesting and silvicultural practices that are complementary to maintenance of wildlife habitat.

3. LAND ALLOCATION - RESOURCE MANAGEMENT AREAS (RMAs)

Following the identification of the broad resource objectives for the planning area, a land allocation scheme was developed to allow the achievement of those objectives. The planning team determined that the planning area should be divided into three RMAs, each reflecting distinct resource management emphases or priorities (Table 1, Figure 5). The RMAs will be managed in the multiple-use context. The differences in emphasis, however, will be demonstrated through specific statements of intent, sets of objectives and corresponding management guidelines for each RMA.

Table 1
hectares (acres)

		Per cent of Total Area
Total Planning Area	169 640 (419 170)	
Proposed White Area	68 430 (169 090)	40
Proposed Green Area	101 210 (250 080)	60
Keg River/Hawk Hills	64 730 (159 940)	38
Naylor Hills	92 870 (229 480)	55
River Corridors	12 040 (29 750)	7

Keg River/Hawk Hills RMA

This RMA consists of an expanded area of land for agricultural development in the vicinity of the existing communities of Keg River and Hawk Hills. This RMA contains 35 930 ha (88 780 acres) of vacant Crown land, which is land not held under some form of tenure.

Management Emphasis - Agricultural use with disposition of land suitable for till cropping or domestic grazing.

Objectives:

1. To allocate suitable land, in order of priority, for expanding, relocating and beginning farm operations.

2. To provide opportunities for the development of livestock operations based on a mixture of sale and grazing lease dispositions.

3. To provide a supply of primary forest products for use by local residents.

4. To maintain the integrity of the fisheries habitat.

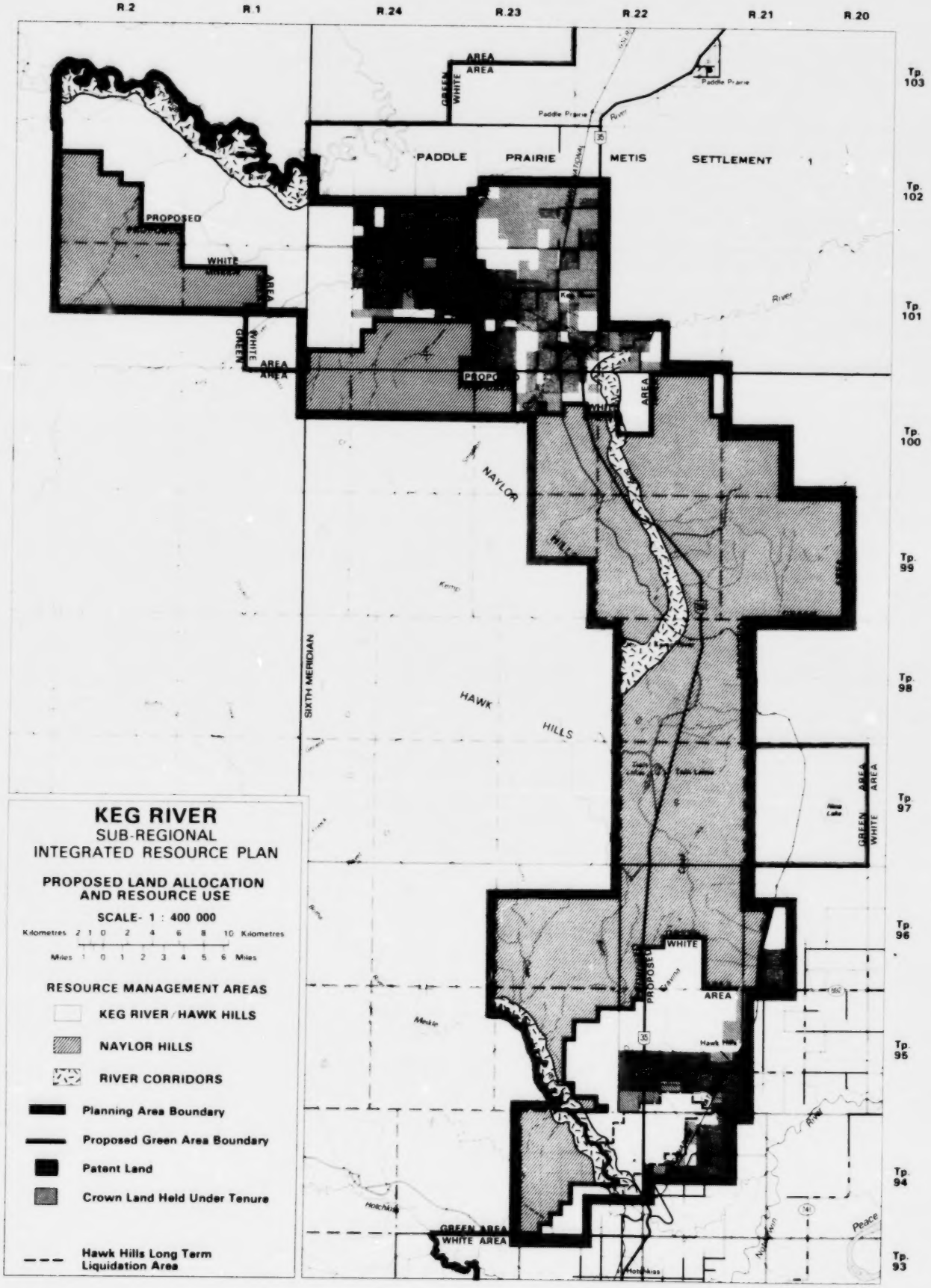

Fig.5 Proposed Land Allocation and Resource Use

5. On land not developed for agriculture, to maintain the integrity of wildlife habitat and manage populations accordingly.

6. On land developed for agriculture, to manage wildlife populations and maintain habitat through operational programs and incentives.

Guidelines:

1. Suitable areas of agricultural land will be identified by detailed operational soil surveys, and made available to the farming community for till cropping or ranching in the form of sale and lease dispositions.

2. Development of agricultural land in the northwestern corner of the planning area (Twp. 101, 102/R.1,2/W.6) will occur in a phased manner. Appropriate development guidelines will be established during implementation of the plan.

3. Livestock operations, based on a mixture of sale and grazing lease dispositions, will be focused in the area located in the N1/2 95-22-W5, 96-22-W5 sections 3-5, 8-10, S1/2 15 and SE16, and 96-21 east of the railway.

4. At an operational level, agency referrals will be made to establish appropriate development guidelines during implementation of the plan. If severe damage or erosion problems are foreseen, recommendations will be made that the land not be put up for sale.

5. Public land suitable for agriculture and with no land-use restrictions, will be sold.

6. Public land suitable for agriculture and with land-use restrictions, will be made available under lease disposition.

7. Timber permits for liquidation purposes will be issued for two years or less.

8. Approximately one twenty-fifth of Hawk Hills Long-Term Liquidation Area (Figure 5) will be logged each year and subsequently made available for agricultural use.

9. Areas suitable for agriculture and supporting a valuable forest crop with a minimum of 860 m^3 of coniferous timber/quarter section or 20 ha (50 acres) or more of regenerating coniferous timber, will be held under reservation until the crop is harvested, at which time the land will be made available for agricultural disposition.

(a) Notwithstanding this guideline, lands stocked with regenerating coniferous stands may be made available for agricultural disposition, in whole or in part, if warranted by demand.

10. Harvesting of merchantable coniferous timber will be completed on saleable agricultural land before disposition of the land.

11. The White Area land within Procter and Gamble's provisional reserve will not be sold until the company's rights have been relinquished.

12. An efficient road service network to areas of saleable land will be planned in consultation between Public Lands Division, Alberta Transportation and Utilities, and Alberta Environment. Alberta Forest Service will be notified of road locations.

13. Expansion of agricultural settlement areas will occur in "block-type" development as much as possible to alleviate fire protection concerns.

14. Agricultural clearing and development will occur in a progressive manner to minimize the risk of fire.

15. Land within a 200 m buffer area of the top of the breaks of the Keg River, and a 100 m buffer area from the top of the breaks of Smeaton and Gravina creeks, will remain under public ownership to maintain wildlife and fisheries resources and to protect water quality. A buffer will also be maintained along the Haro River.

16. On other major creeks, Ecological Corridor Agreements or permanent reservations will be used to accommodate surface drainage networks, protect stream ecology and provide diversity of wildlife habitat.

17. To ensure protection of streams and migration corridors for ungulates, the Fish and Wildlife Division will identify, during implementation planning, all those lakes and streams for which referrals will be required on applications for disposition of land within 75 m of the breaks of the waterbodies.

18. Non-conforming land uses under disposition at present will be reviewed and appropriate management guidelines will be applied upon renewal.

19. The Manning District Fish and Wildlife office will respond to problem wildlife concerns reported by landowners and will attempt to provide control measures to alleviate the problems. Control measures may be used for wolves, bears, beavers or other species.

20. The Public Lands Division will notify the Fish and Wildlife Division before posting land for agricultural sale or lease so that trappers on registered lines can be notified of deletions from their areas. The Fish and Wildlife Division will then issue a letter to the senior trapper that clearly identifies the area deleted, the effective date of deletion and details of sale or lease.

Naylor Hills RMA

This RMA (Figure 5) consists of a corridor between the Keg River and Hawk Hills communities, as well as areas west of each community.

Management Emphasis - Activities related to sustained-yield timber harvesting, wildlife and fisheries management, watershed management, domestic grazing, recreation and minerals exploration and development, will predominate.

Objectives:

1. To provide a supply of primary timber products as well as expansion opportunities for the timber industry and local residents.

2. To meet existing timber supply commitments to quota and FMA holders.

3. To provide opportunities for both improved and unimproved grazing on suitable lands.

4. To maintain fisheries habitat and the integrity of all fish-bearing streams including the Haro and Keg rivers, Smeaton, Gravina, Scully and Goffit creeks.

5. To maintain stocked trout in Twin Lakes.

6. To maintain important moose winter ranges on all land west of the Meikle River, in the area of the Hawk Hills Tower and in the block west of the Kemp River.

7. To maintain grizzly bear range on the steep slopes of the Naylor Hills and land west of the Haro River.

8. To provide opportunities for extensive recreational activities.

9. To maintain population levels for the following species according to the report "Status of the Fish and Wildlife Resource in Alberta":

Moose	300
White-tailed Deer	100
Mule Deer	80
Ruffed Grouse - spring	2 000
- fall	6 000
Sharp-tailed Grouse - spring	400
- fall	1 200
Spruce Grouse - spring	400
- fall	1 000
Black Bear	106
Grizzly Bear	4-5

10. To maintain potentially-harvestable numbers for the following species:

Mink	200
Weasel	4 200
Coyote	73
Wolves	9
Lynx - high cycle	52
- low cycle	19
Red Squirrels	10 000
Marten	200
Fisher	31
Wolverine	1

11. To maintain habitat and migration corridors for wildlife along stream courses.

12. To provide opportunities for the use of prescribed burns to meet land management objectives.

13. To provide opportunity for upgrading and expanding the Twin Lakes Recreation Area if demand warrants.

Guidelines:

1. This RMA is composed entirely of Green Area land within the planning area and will be managed accordingly.

2. Portions of this RMA south of the 25th baseline will be managed as a woodlot for timber use by local residents.

3. Access for timber production operations will be determined through co-operative planning efforts and in accordance with the departmental referral system. This approach will maximize the

benefits from common transportation corridors and minimize the impacts associated with surface disturbances. The publication, Resource Road Planning Guidelines (Alberta Energy and Natural Resources 1982), is cited for reference.

4. Grazing use will be encouraged on land adjacent to existing agricultural operations.

5. Grazing will not be permitted on land where such use would endanger valuable coniferous regeneration or stocking.

6. Grazing will not be permitted along the slopes of the Naylor or Hawk hills.

7. Grazing dispositions will not be issued on areas of important grizzly range west of the Haro River.

8. Grazing dispositions will not be issued adjacent to fish-bearing streams, important migration routes, calving areas and wintering areas.

9. All existing long-term surface dispositions will be reviewed and appropriate management guidelines will be applied upon renewal.

River Corridors RMA

This RMA (Figure 5) includes land within 400 m of the top of the breaks (defined by fluvial ecosections) on the following rivers:

- Chinchaga River - fluvial ecosection - F1
- Meikle River - fluvial ecosection - F2
- Kemp River - fluvial ecosections - F3, F4

Management Emphasis - Retention of recreational and aesthetic values associated with river corridors; supporting significant fisheries and wildlife populations; and protecting riparian land where erosion, slumping and flooding occur, or where buffers are required to address water quality concerns.

Objectives:

1. To provide opportunities for extensive recreation such as hunting, fishing and canoeing.

2. To minimize soil erosion and maintain water quality.

3. To maintain habitat for grayling, walleye and pike in the Meikle and Chinchaga rivers, and grayling and pike in the Kemp River.

4. To maintain important moose wintering and spring habitat.

5. To maintain grizzly bear range along the Chinchaga River together with the Naylor Hills RMA.

6. To maintain population levels for the following species:

Moose	100-200
White-tailed Deer	70
Mule Deer	70
Ruffed Grouse - spring	200
- fall	600
Sharp-Tailed Grouse - spring	100
- fall	300
Spruce Grouse - spring	100
- fall	300
Black Bear	20
Grizzly Bear	1

7. To maintain potentially-harvestable numbers for the following species:

Mink	45
Weasel	370
Coyote	15
Wolves	2
Lynx - high cycle	5
- low cycle	2
Red Squirrels	2 000
Marten	37
Fisher	3

8. Use of motorized vehicles will be encouraged to take place on existing roads and trails.

9. To provide a supply of primary timber products as well as expansion opportunities for the timber industry and local residents.

10. To help meet existing timber supply commitments to quota and FMA holders.

Guidelines:

1. No new grazing dispositions will be granted in this RMA.

2. Most of this RMA is composed of Green Area land within the planning area and will be managed accordingly.

3. Access for timber production operations will be determined through co-operative planning efforts and in accordance with the departmental referral system. This approach will maximize the benefits from common transportation corridors and minimize the impacts associated with surface disturbances. The publication, Resource Road Planning Guidelines (Alberta Energy and Natural Resources 1982), is cited for reference.

4. All existing long-term surface dispositions will be reviewed and appropriate management guidelines will be applied.

5. Appropriate legislation and enforcement should be effected to minimize wildlife harassment and soil erosion from unrestricted use of motorized vehicles.

4. AREAS OF ADMINISTRATION

The province is divided into two main administrative areas, the White Area and the Green Area. Both areas are managed in a multiple-use context including conservation, recreation, forestry, wildlife habitat and agriculture. There is, however, one basic important difference between the two areas:

White Area: is generally settled or suitable for settlement. It is usually associated with more intensive uses such as developed agriculture, urban centers and extensive infrastructure.

Green Area: is largely permanent forest. It is usually associated with less intensive uses such as logging, wildland recreation and limited undeveloped agriculture (grazing only).

The main task of the planning team, following a full evaluation of the planning area, was to establish the land base for both agricultural development and permanent, long-term forest management by relocating the Green Area boundary. Figure 4 shows the existing Green Area boundary as it passes through the planning area. Figure 5 shows the proposed revisions to the boundary inside the planning area. This administrative adjustment is necessary to accommodate the recommendations in the plan for agricultural expansion. The result is an increase in the size of the White Area and a decrease in the size of the Green Area within the planning area by about 13 260 ha (32 770 acres) (Table 2).

Table 2
hectares (acres)

Existing White	55 170 (136 320)
Existing Green	114 470 (282 850)
Proposed White	68 430 (169 090)
Proposed Green	101 210 (250 080)
Additional White	13 260 (32 770)

5. IMPLICATIONS

This plan emphasizes expansion of the agricultural sector while at the same time making possible a permanent land base for long-term forest and wildlife management. By looking at the interrelationships among resources and the implications that development of one resource will have on the others, the plan should result in the optimum use of all resources to maximize benefits and opportunities for the public.

The plan creates opportunities for new agricultural development (mainly till cropping but also domestic grazing) by making additional public land available within the Keg River/Hawk Hills RMA. As a result of the relocation of the Green Area boundary, an area of approximately 35 930 ha (88 780 acres) of vacant Crown land was identified. It is expected that during implementation of the plan and interpretation of the management guidelines, about 60 per cent of the 35 930 ha will eventually be identified as land suitable for agricultural development and made available.

The concerns expressed by residents of the Keg River and Hawk Hills communities dealt with making land available for future expansion for their children. The plan recognizes this concern and directs that land will be made available for expanding, relocating and beginning farm operations.

The plan makes possible improved forest management. The Green Area boundary proposed in the plan will focus agricultural expansion and allow the Forest Service to manage the timber resource in the Green Area with confidence.

There are no significant impacts on the coniferous forest resource as a result of the changes in the land base in the plan. Land removed from the Green Area in the vicinity of the settlements of Hawk Hills and Keg River will continue to provide local timber supplies on a liquidation basis in advance of agricultural development. Land recommended for inclusion in the Green Area is more suited to forest management over the long term and, therefore, will contribute to the fulfillment of sustained-yield timber management objectives.

The impact of the plan on timber management programming is considered to be negligible. Timber liquidation in the vicinity of Hawk Hills and Keg River will proceed at approximately the same rate that past demand has required. Once these areas have been liquidated, there is provision in the adjacent forest management units to provide timber for local use. Additionally, Keg River and north Hawk Hills woodlots will be managed on a sustained-yield basis.

There is no appreciable impact on the Procter and Gamble provisional reserve as a result of the plan direction. The allocation of land in the provisional reserve for agricultural development has an insignificant effect on coniferous timber volumes. Further, the plan

provides for this area to remain in the provisional reserve until Procter and Gamble's rights have been relinquished.

Although the plan provides for expansion of the agricultural land base, this development cannot be achieved without a corresponding decrease in the land base of other resources. The proposed conversion of naturally-vegetated land will, for instance, remove wildlife habitat and lead to the potential loss of 100-150 moose, 100 marten, 1400 ruffed grouse and unknown numbers of other species. Other resources, such as water and fisheries habitat, will have increased potential for loss of quality and quantity. Careful planning, however, with conscientious adherence to the guidelines and respect for environmental concerns by agencies and landholders, should minimize the effect of agricultural development.

Increased pressure for recreational hunting and fishing, and a possible subsequent increase in violations of Fish and Wildlife Regulations, may warrant more attention to management and enforcement. There could also be an increase in the number of complaints about problem wildlife; for example, beavers, bears and wolves.

Environmental sensitivity along watercourses was identified by planning team members and consultants as a concern in the planning area. Recognizing this, the planning team used an ecologically-based map to determine areas requiring special protection. The result was formal recognition of the need for conservation of the river valleys through identification of the river corridor RMAs. Both sensitive floodplains and the steep valley walls will be protected.

These RMAs correspond to important wildlife and fish habitat and provide potential opportunities for extensive forms of recreation, particularly hunting and fishing. Opportunities will be enhanced indirectly through increased access resulting from farm and forest development. The recreational aspect relates mostly to local residents, but recognizes the need to allow for people from outside the area.

Protection and enhancement of habitat along streams may increase the costs borne by livestock producers, if they are responsible for all fencing and water development costs.

In summary, the recommendations in the plan represent an optimization of use of the resources within the Keg River planning area. Although some adverse impacts may occur on certain resources, those impacts will be mitigated through close attention to the resource management objectives and guidelines included in the plan.

6. PLAN MANAGEMENT

General administrative procedures and mechanisms for plan management, monitoring and amendment are outlined in this section. The Peace River Regional Resource Management Committee is responsible for ensuring that the plan is implemented and for documenting progress made towards the attainment of plan objectives.

General Administration

The Keg River plan will be implemented within the terms of appropriate legislation, regular programs and activities of the government, operational plans, specifically-developed projects, referral processes and administrative bodies. The RMAs provide a means of processing applications for new dispositions of public land within the planning area. Existing systems for referral and interdepartmental review will apply to the plan. Resources will continue to be administered by the departments responsible, in line with the provisions of the plan including resource management guidelines and any subsequent operational plans.

Participating government management agencies will have several responsibilities to ensure that this plan is delivered effectively. It will be their responsibility to deal with any conflicts or concerns with respect to implementation or interpretation of any of the provisions in the plan. The responsibilities are outlined by subject area below.

Referral Systems: Participating government management agencies will ensure that existing referral systems of the Alberta government (e.g., Alberta Energy and Natural Resources 1981a, 1981b) are adequate to encompass all affected or concerned agencies.

Plan Monitoring: The Plan will be reviewed annually by the Peace River Regional Resource Management Committee to:

- assess the relevancy of the stated resource objectives in light of changing conditions;
- assess the resource management guidelines and referral procedures;
- assess the agency's operational plans to ensure they are consistent with the intents, objectives and guidelines of the resource management areas; and
- recommend amendments and future actions required to maintain or promote government, resource management activities in the planning area.

A major plan review by the Peace River Regional Resource Management Committee will occur at five-year intervals to facilitate:

-- a comprehensive assessment of all aspects of the plan, including, but not limited to, the broad resource management objectives and the boundaries and intents of resource management areas;

-- a public review on the same basis as in the development of new integrated resource plans; and

-- a statement recommending amendments to the plan and future actions required to maintain or promote resource management activities in the planning area.

A report will document all amendments. Major plan reviews may be undertaken more or less frequently than every five years if required by major resource policy commitments or development of program initiatives.

Amendment Procedures: Changes to the boundary of the planning area, the broad resource management objectives and the boundaries and intents of the resource management areas will require a major amendment to the plan. Amendments may be required as a result of an annual review, major five-year review, government request or a request from an individual, group or organization outside the government. Amendments proposed from outside the government should be made by formal application to the Regional Resource Co-ordinator of Alberta Forestry, Lands and Wildlife in Peace River.* Opportunities for public review of proposed amendments to the plan will be provided before changes are approved by the government. Amendments that entail a major policy decision or a change to the basic intent of the plan may be forwarded by the Minister of Forestry, Lands and Wildlife to the Cabinet Committee for approval.

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*Guidelines for preparing requests for amendments to integrated resource plans are available upon request.

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